

## WHAT IS CLAIMED IS:

1. A method of enhancing the activity of lysosomal  $\alpha$ -galactosidase A in mammalian cells comprising administering an effective amount of a compound selected from the group consisting of 2,5-dideoxy-2,5-imino-D-mannitol, 3,4-*diepi*- $\alpha$ -homonojirimycin, 5-O- $\alpha$ -D-galactopyranosyl- $\alpha$ -homonojirimycin, 1-deoxygalactonojirimycin, 4-*epi*-fagomine, calystegine A<sub>3</sub>, calystegine B<sub>2</sub>, and calystegine B<sub>3</sub>, and N-alkyl derivatives thereof.

2. The method of claim 1 wherein the lysosomal  $\alpha$ -galactosidase A is a mutant form which is present in patients with Fabry disease.

3. The method of claim 1 wherein said cells are human cells.

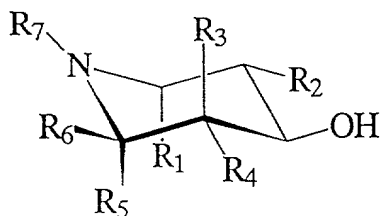
4. The method of claim 3 wherein said cells are the cells of a patient with Fabry disease.

5. A method of treating Fabry disease comprising administering an effective amount of a compound selected from the group consisting of 2,5-dideoxy-2,5-imino-D-mannitol, 3,4-*diepi*- $\alpha$ -homonojirimycin, 5-O- $\alpha$ -D-galactopyranosyl- $\alpha$ -homonojirimycin, 1-deoxygalactonojirimycin, 4-*epi*-fagomine, calystegine A<sub>3</sub>, calystegine B<sub>2</sub>, and calystegine B<sub>3</sub>, and N-alkyl derivatives thereof.

6. The method of claim 5 wherein said compound is 1-deoxygalactonojirimycin or 3,4-*diepi*- $\alpha$ -homonojirimycin.

7. The method of claim 6 wherein said compound is 1-deoxygalactonojirimycin.

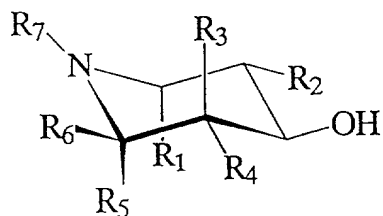
8. A method of enhancing the activity of lysosomal  $\alpha$ -galactosidase A in mammalian cells comprising administering an effective amount of a compound of the formula



wherein

- $R_1$  represents H,  $-\text{CH}_2-$  or  $\text{CH}_2\text{OH}$ ;
- $R_2$  represents H, OH or  $-O$ -galactose;
- $R_3$  and  $R_4$  independently represent H, or OH;
- $R_5$  represents H, or  $-\text{CH}_2-$ ;
- $R_6$  represents  $\text{CH}_2\text{OH}$ , or OH; and
- $R_7$  represents H or an alkyl group containing 1-3 carbon atoms, provided that when either  $R_1$  or  $R_5$  is  $-\text{CH}_2-$ , they are identical and are linked to form a second ring structure.

9. A method of treating Fabry disease comprising administering an effective amount of a compound of the formula



wherein

- R<sub>1</sub> represents H, -CH<sub>2</sub>- or CH<sub>2</sub>OH;
- R<sub>2</sub> represents H, OH or -O-galactose;
- R<sub>3</sub> and R<sub>4</sub> independently represent H, or OH;
- R<sub>5</sub> represents H, or -CH<sub>2</sub>-;
- R<sub>6</sub> represents CH<sub>2</sub>OH, or OH; and
- R<sub>7</sub> represents H or an alkyl group containing 1-3 carbon atoms, provided that when either R<sub>1</sub> or R<sub>5</sub> is -CH<sub>2</sub>-, they are identical and are linked to form a second ring structure.